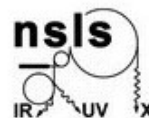


Update on X6A Web Service

Prepared by Kun Qian

2008-02-21

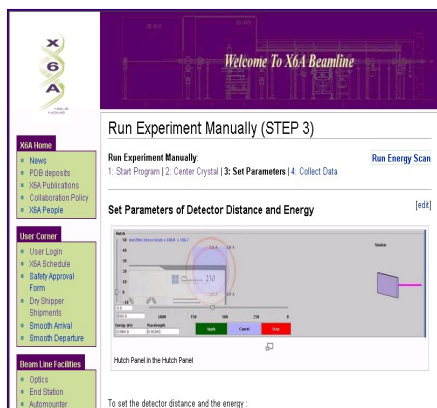


Topics

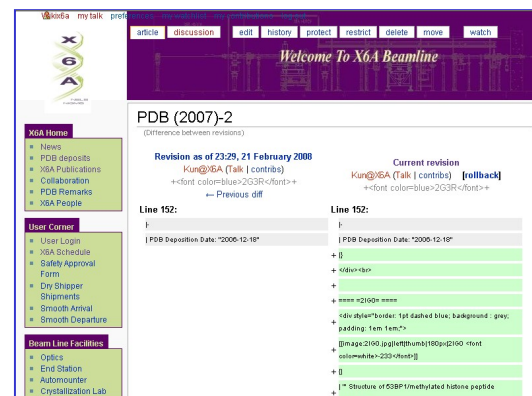
- X6A web service structure
 - X6A wiki site;
 - User-self scheduling system;
 - Management toolkit
- Two New Functions
 - Event scheduling
 - X6A schedule adjustment
- Integrations of X6A web service
 - Internal integration
 - Integration with data acquisition system
 - Integration with NSLS Pass system

X6A Web Service

----- x6a wiki site



- Mediawiki (Wiki) provides a simple, web-based environment that enables users to collaborate, provide and share information.



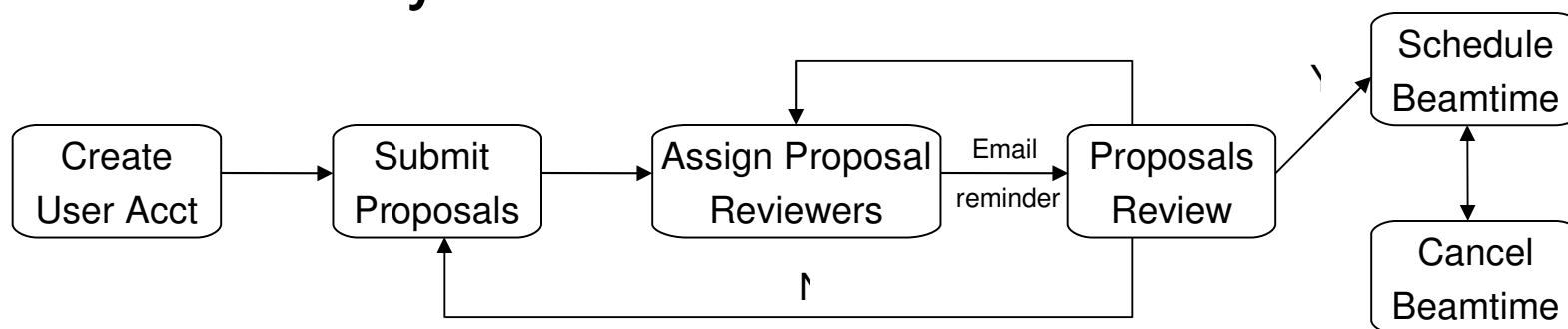
- The wiki permits to store, categorize and share information allowing any registered user to update, edit and enhance the information

X6A Web Service

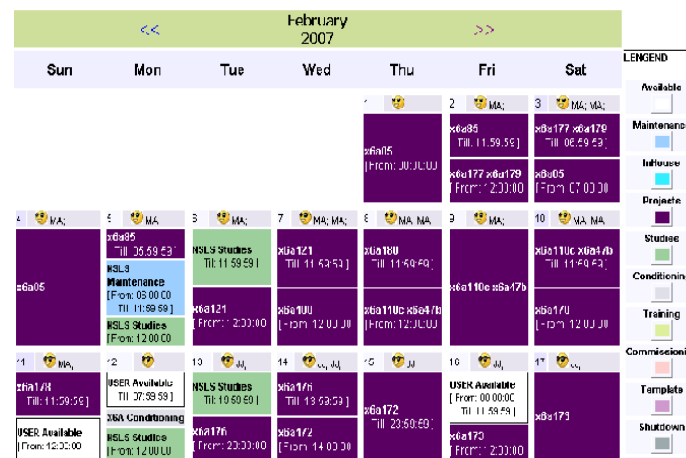
----- user-self scheduling system



• Schedule System Work Flow



- Automated review process
- Users schedule themselves
- Real-time schedule calendar



X6A Web Service

----- Management Toolkit



- Assignment Toolkit
- Statistic Toolkit
- Tracking Toolkit

Pending Projects: 1 projects are during review procedure.

x6a179 Unable to review --- [Jaffe, Eileen K.]
Approved (1) --- [Chayen, Naomi]
Rejected (1) --- [Ramaswamy, S.]

Pending (1) --- [Roey, Patrick V.] Assigned on: 2007-02-10 00:03:00 Expire on 23:59:59

Next 3 Schedules

Future Visits

Projects: [x6a173]	Schedule: From: 2007-02-16 12:00:00 To: 2007-02-19 12:00:00
Local Contact: jakoncic, jean	Visitors:
User Folder: >>> Dir /data_cys/User/x6969/2007-02-16	Scheduler: [Olivier , Nelson]
Visit Form: Done [View Visit Detail]	Crystal Form: Incomplete!!! Local Contact should ask user to fill in the crystal form.
No user sample shipment	
Projects: [x6a104] [x6a81]	Schedule: From: 2007-02-23 12:00:00 To: 2007-02-27 00:00:00

Admin Staff Duty Tracking Page

New Function: Example

----- Event scheduling



- Reasons

- Time-consuming task
 - Web forms activation
 - Sequence of emails in order

- Procedure

- Create a new event entry
- Create scheduled emails (optional)

Insert Email

Event	ANNUALSURVEY From 2007-11-15 to 2008-02-25	Note: For the moment, this email automation only work for AnnualSurvey
Email From	x6ansls@bnl.gov	Schedule send date
Email To	ALLPROJ_PI_CHAMPION	Email cc x6ansls@gmail.com
Subject	X6A Annual Survey 2007 --- Be aware of multiple projects in your account	
Body	<p>SURVEYPROJECTS and SURVEYLINK are special words, will be replaced with users project number and web active ip address. Do NOT remove these words!!!</p> <p>Dear X6A User,</p> <p>The success of the X6A beam line relies on your success. If you have not done so already please take a few minutes to complete the annual survey located at the link below. The results from this survey will help us to prepare our yearly report to the NIGMS and Scientific Advisory Committee. Please also remember to send us an email if your research has been mentioned in the media in any form.</p> <p>SURVEYLINK</p> <p>* Note: There is(are) X6A project(s) SURVEYPROJECTS in your account</p>	
Emailed	Not Send yet	Status Valid
<input type="button" value="insert"/>		

New Function: Example

----- Beam time adjustment



- Reason:
 - Schedules and actual beamtime
 - Incorrect experiment records
 - Lack of convenient solution
- Procedures:
 - Select a schedule
 - Adjust schedule time
 - Confirm the change

Confirm your Changes

The Selected Beamtime Change From

From 2008-02-14 12:00:00 To 2008-02-15 08:00:00 Projects x6a213	From 2008-02-15 08:00:00 To 2008-02-15 16:00:00 >> Projects x6a218<<	From 2008-02-15 16:00:00 To 2008-02-19 00:00:00 Available
---	--	---

To =====>

From 2008-02-14 12:00:00 To 2008-02-15 08:00:00 Projects x6a213	From 2008-02-15 08:00:00 To 2008-02-15 10:00:00 Available	From 2008-02-15 10:00:00 To 2008-02-16 16:00:00 >> Projects x6a218<<	From 2008-02-16 16:00:00 To 2008-02-19 00:00:00 Available
---	---	--	---

● **INSERT beamtime:** 2008-02-15 08:00:00 ~ 2008-02-15 10:00:00

● **Update Beamtime:**
Original schedule 2008-02-15 08:00:00 ~ 2008-02-15 16:00:00
Current schedule **2008-02-15 10:00:00 ~ 2008-02-16 16:00:00**

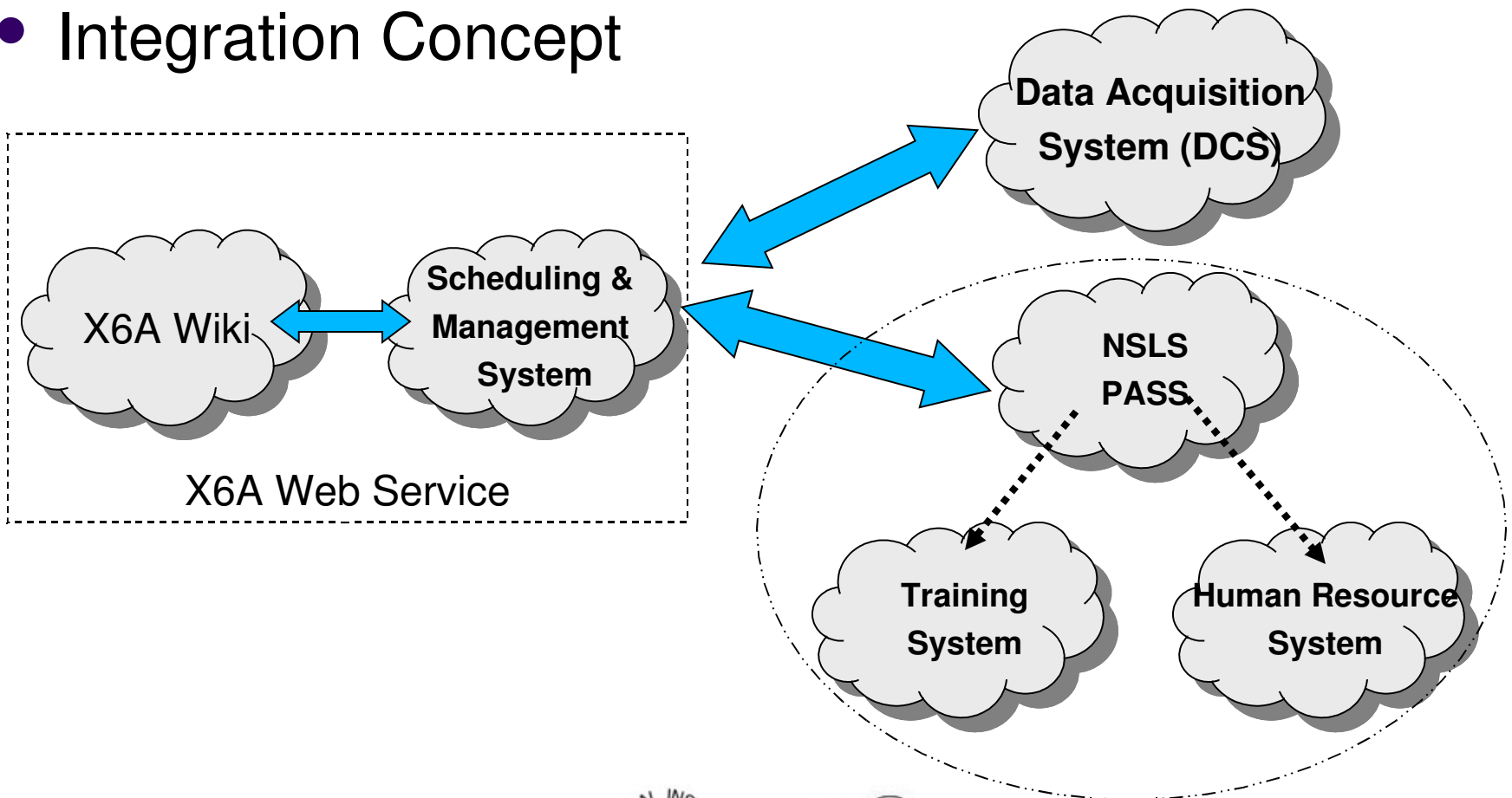
● **Update Beamtime:**
Original schedule 2008-02-15 16:00:00 ~ 2008-02-19 00:00:00
Current schedule **2008-02-16 16:00:00 ~ 2008-02-19 00:00:00**

☐ **Confirm Checkbox:**
Check this box to confirm that you want to change the beamtime as described above.

X6A Web Integration



- Integration Concept



X6A Web Integration

----- Internal Integration

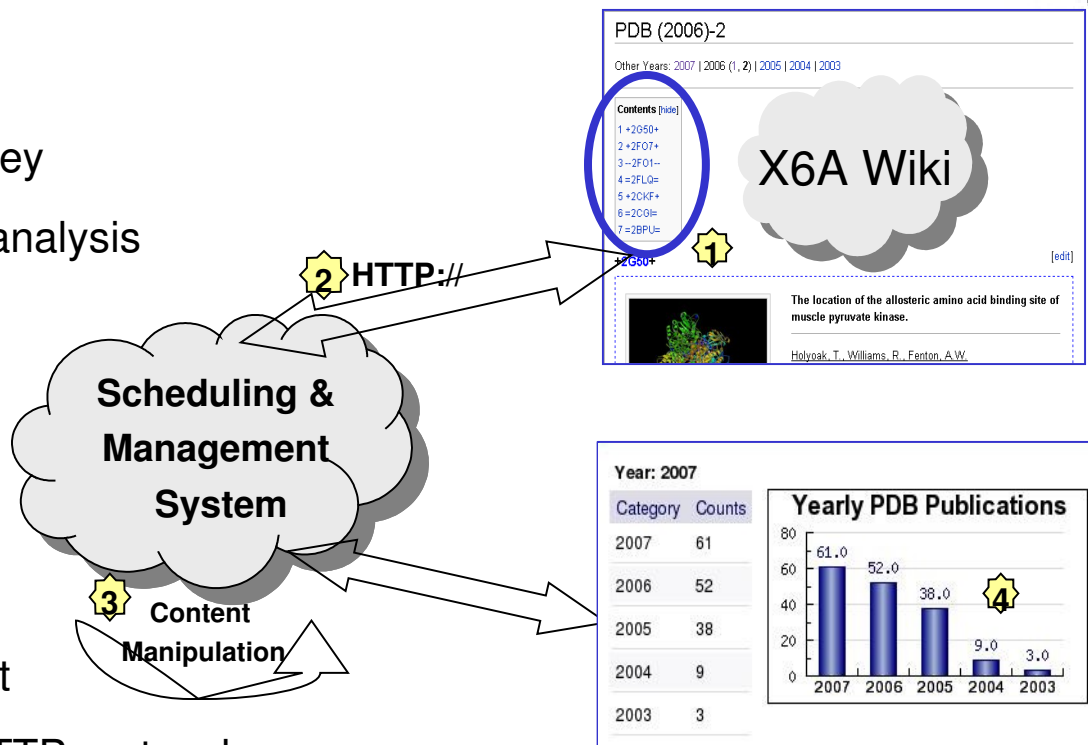


- Relations

- Wiki PDB list from survey
- Survey PDB real-time analysis

- Techniques:

- Define wiki page format
- Content retrieval via HTTP protocol
- Content filter on predefined format
- Real-time calculation



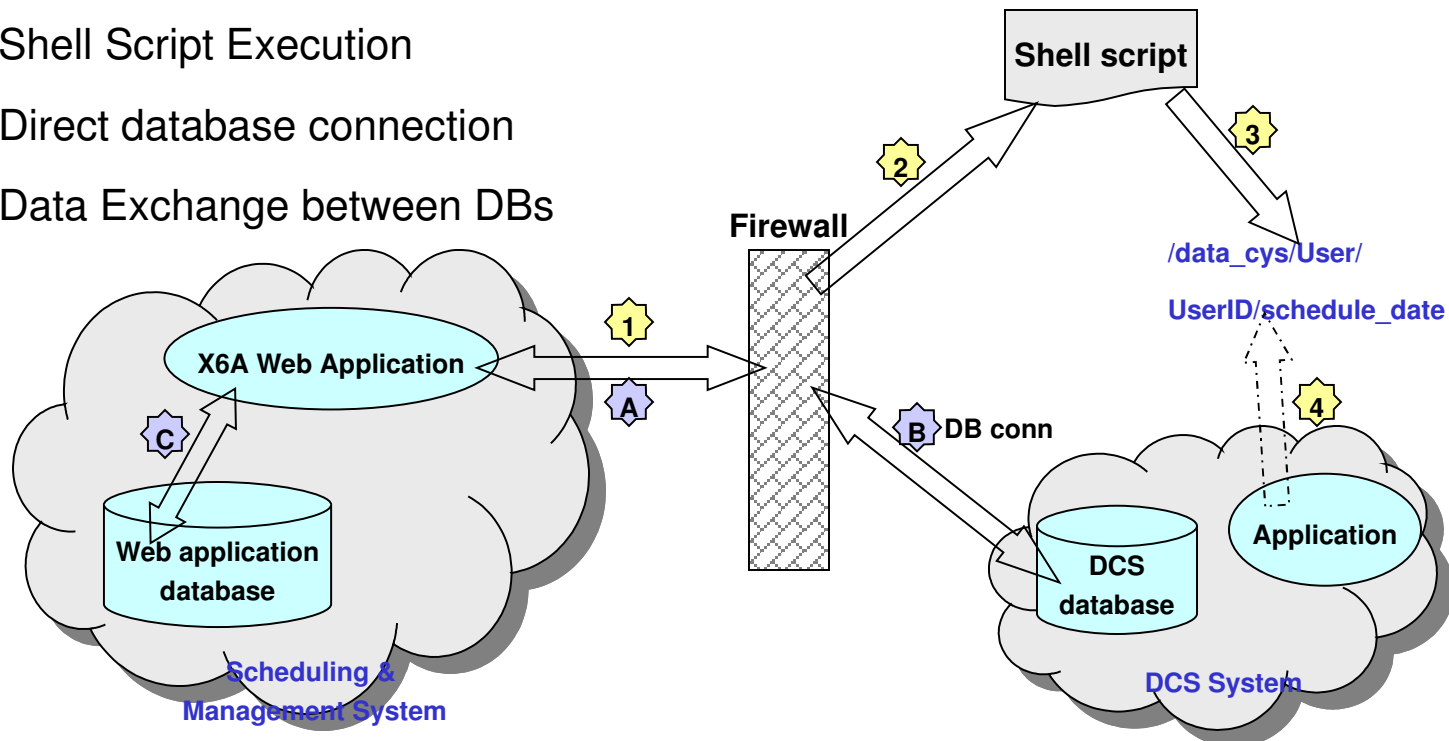
X6A Web Integration

----- Integration with DCS



- Techniques:

- Through a firewall
- Shell Script Execution
- Direct database connection
- Data Exchange between DBs

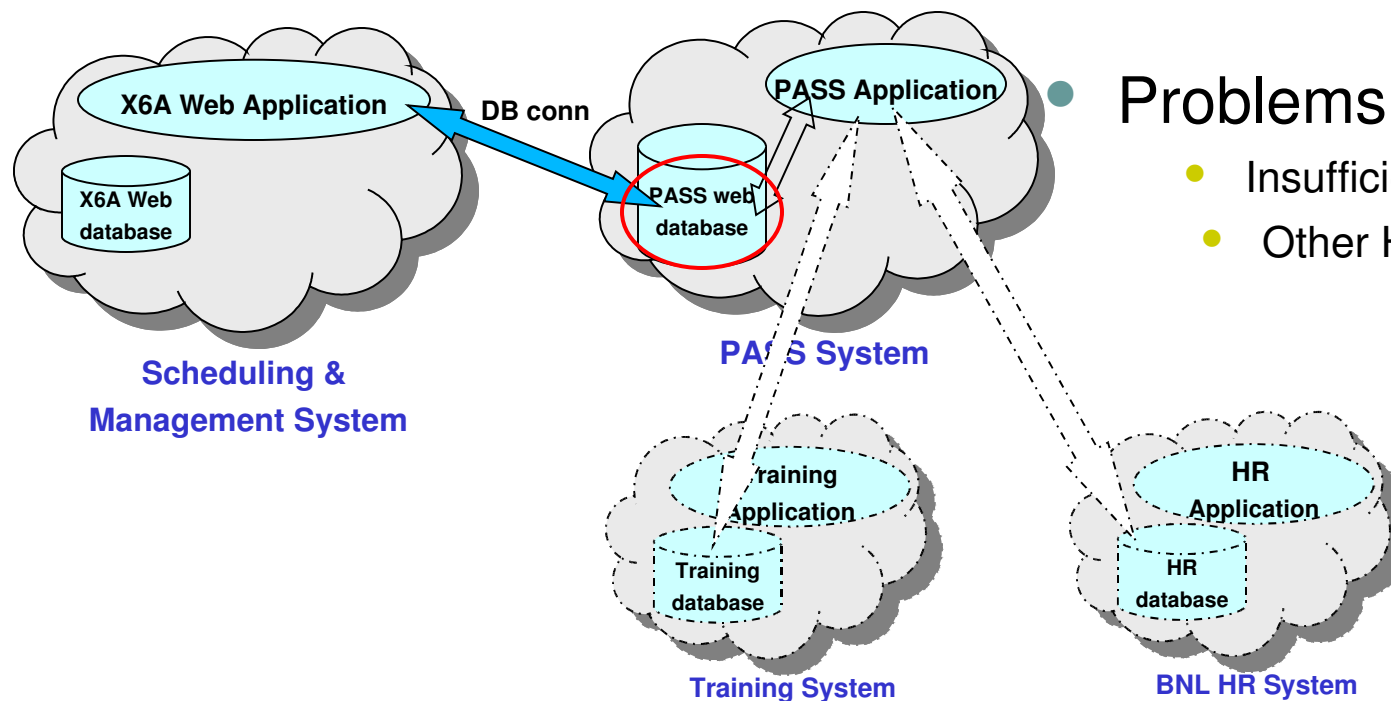


X6A Web Integration

----- Integration with PASS



- Approach One: (traditional way)
 - Connections to PASS database



● Problems:

- Insufficient permission.
- Other Hidden Systems

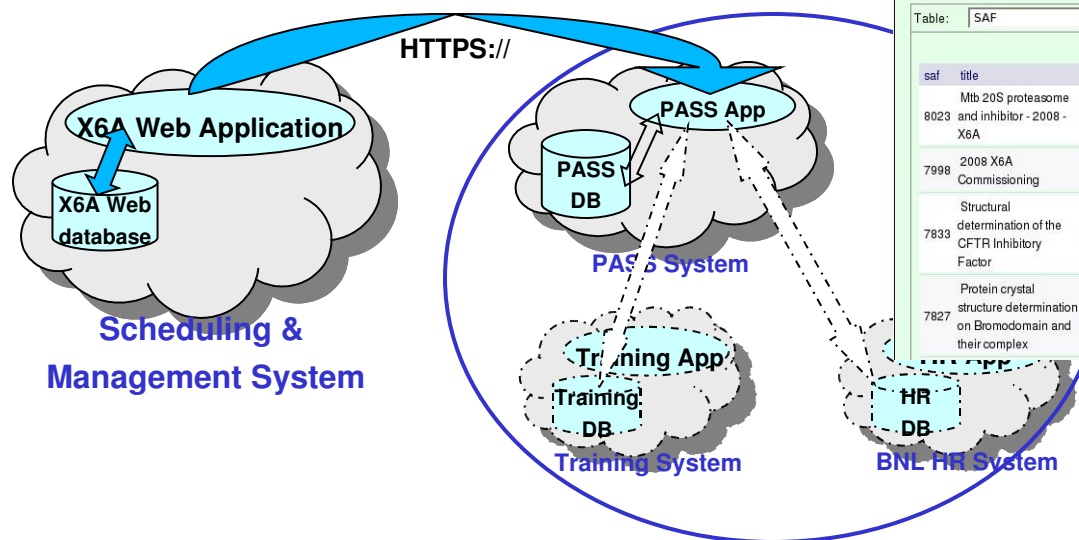
X6A Web Integration

----- Integration with PASS (cont.)



● Approach Two: (simple way)

- Data Collection from PASS Web



- Processes:

- Update
- Query

View All The Table Content ----- For X6A Staff

Recently you have 48 safs.

Table:	SAF	Style:	Table	10 Records/Page
saf	title	expires	status	view
8023	Mtb 20S proteasome and inhibitor - 2008 - X6A	2009-01-21	Approved	↻
7998	2008 X6A Commissioning	2009-01-16	Approved	↻
7833	Structural determination of the CFTR Inhibitory Factor	2008-11-15	Approved	↻
7827	Protein crystal structure determination on Bromodomain and their complex	2008-11-14	Approved	↻

SAF_ID: 7998
Title: 2008 X6A Commissioning
Expires: 2009-01-16
Status: Approved

20327: Stojanoff, Vivian Blosa Expires: 2008-06-23
LS Training Expires: 2008-06-26 Rad. Training Expires: 2008-02-21

QIAN, KUN Blosa Expires: 2008-08-10
LS Training Expires: 2009-10-29 Rad. Training Expires: 2009-10-29

[7827] Approved Valid 2008-11-14
Protein crystal structure determination on Bromodomain and their complex

[7821] Approved Valid 2008-11-13
Complex structure of villin and migrastatin

[7805] Approved Valid 2008-11-09
Radiation Damage of enzymes

X6A Web Integration

----- Integration with PASS (cont.)



- Advantages
 - No need for separated database connections
 - Transparent Update Process to most staff
 - Instant browsing of local PASS information
 - More flexibility on data search and display
- Assumptions and Limitations
 - No changes on PASS web format
 - Not many new records in short term
 - Update once in a while
 - Long waiting during the update

Summary

- X6A web service has operated well for 2 years.
- More features have been included
- Integration with different systems has been implemented.
- System Complex →

